

ABSTRACT OF THE DISCLOSURE

A vehicle wheel tyre includes a carcass structure, at least one annular reinforcing structure, a tread band, and a pair of sidewalls. The carcass structure includes at least one carcass ply, each including a plurality of elongated elements disposed around a cross-section profile of the tyre. Each elongated element includes two side portions at mutually-spaced-apart positions and a crown portion that extends between the side portions. The at least one annular reinforcing structure includes at least one bead core. A fraction of the elongated elements is turned up around the at least one bead core. A method of manufacturing the tyre includes preparing the elongated elements, disposing each elongated element on a toroidal support, applying at least one bead core at a region close to side portions of the elongated elements, and turning up ends of a fraction of the elongated elements around the at least one bead core.